

On the measurement of multidimensional poverty as a policy tool

Citation for published version (APA):

Franco Correa, A. (2017). *On the measurement of multidimensional poverty as a policy tool: empirical applications to Chile, Colombia, Ecuador and Peru*. [Doctoral Thesis, Maastricht University]. Datawyse / Universitaire Pers Maastricht. <https://doi.org/10.26481/dis.20170112afc>

Document status and date:

Published: 01/01/2017

DOI:

[10.26481/dis.20170112afc](https://doi.org/10.26481/dis.20170112afc)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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- The final published version features the final layout of the paper including the volume, issue and page numbers.

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VALORIZATION

In accordance with article 23.5 of the “Regulation governing the attainment of doctoral degrees at Maastricht University” decreed by resolution of the Board of Deans, dated 3 July 2013, an addendum must be added about valorization.

The first of the Millennium Development Goals in the United Nations declaration of 2000 dealt with poverty reduction. The specific goal was “to eradicate extreme poverty and hunger by 2015”. This opened a discussion about how the goal was to be achieved and the type of poverty to be eradicated. An important part of this debate, relevant to social scientists and policy-makers for the last sixteen years, was the best way to measure poverty. The question of measurement was part of the deliberation leading to the Sustainable Development Goals (SDGs) for 2030, the first of which was “End poverty in all its forms everywhere”. Seven targets were related to this goal, one of which was: “By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”.

The topics presented in each chapter of this doctoral thesis are centered on the measurement of multidimensional poverty. Focused in four countries in Latin America: Chile, Colombia, Ecuador and Peru, the thesis shows that despite the simplicity of the adjusted headcount ratio of the Alkire-Foster family of indices, the most widely known composite index to measure poverty in all its dimensions, the implications behind the method are not easily accessible to policy-makers. This issue was in the center of the deliberations about a particular way to understand poverty in all its dimensions at the SDG summit but there was no consensus on a method. Instead it was left to each nation to select the best measure of multidimensional poverty. As a result, policy-makers need to be aware of the effects of normative choices on the overall result of a poverty index, and that the

choices that they will take have effects on the welfare of extremely disadvantaged people, depending on the use of the particular index. This thesis addresses these issues of social relevance.

In the following, a list of the main results and the arguments that support them are presented for each one of the chapters. The list shows the place of policy-makers, in addition to the academic community, the concrete results that can be used to further the debate about measuring multidimensional poverty and the innovative content based on making new or significantly improved tools available to potential users in governments, universities and civil society. Finally, there are observations on the broader applicability of this work.

1. Why is it socially relevant to compare the results of a household based multidimensional poverty indicator as opposed to an individual one?

Based on the theoretical framework supported in Chapter 1 and Chapter 2, the household should not be used as the unit of analysis of a multidimensional poverty index, as the Capabilities Approach states that functionings are permeated by individual choices. In other words, two individuals can share the same resources inside the same household, and nonetheless exhibit a different set of capabilities. Using the household as the unit of analysis, taking into account the same thresholds as fixed for an individual case, deprivations of one member imply deprivations of all the members which will inflate the multidimensional poverty of the society. Doing the opposite will mean that deprivations of some individuals are not important for their personal development.

2. What does the choice of a minimum number of dimensions needed to be considered multidimensionally poor matter for policy purposes?

The main reason to create a composite indicator is not the resulting number per se but how it permits comparisons with other regions, cities, countries, and so on. It means that sometimes the result of the index is not easily interpreted by policy-makers unless it is converted to a ranking. Rankings depend on the normative choices behind them, creating a loop of uncertainty about the results. It is why tools, such as stochastic dominance, which performs pair-wise comparisons of all the choices, or graphical techniques as the Hasse-Diagrams, allow the researcher to reduce that level of uncertainty and to make the results clearer to policy-makers.

3. Can the performance of multidimensional poverty over time be measured?

One of the main features of multidimensional poverty measurement, using the Alkire-Foster Adjusted Headcount Ratio, is that it requires the same information for the same subject. When measuring it over time the best approach is to follow the subject over time, meaning having access to panel datasets. However, most of the less developed countries do not have a culture of longitudinal data.

Recent developments in the field of multidimensional poverty measurement have given rise to techniques that calculate trends over time using anonymous data. In other words, despite the fact that different subjects have been questioned, the national, regional or municipality data is an average so it is possible to measure it over time.

Using this techniques, chapter 5 shows that, from all the countries in the sample, Ecuador was the one that experienced an evident improvement of its results in the last 10 years.

4. Is multidimensional poverty measurement replacing monetary poverty as a tool for policy-making?

Using the case of Colombia, the last chapter shows that despite the increasing efforts made by public officials to use a multidimensional poverty index, whenever public servants and policy-makers talk about poverty in the country, they refer to monetary poverty.

Multidimensional poverty as a concept is too difficult to transfer to the citizens and to other policy makers. Still, the measurement of multidimensional poverty requires an extensive knowledge of the technique which is limited to a small elite of public officials that work for the government.

Broader application of this work

The results shown in this research could be applied to other countries outside of the sample used for empirical application. The demands from the SDGs are that each nation should decide upon the best method to measure poverty in all its forms. The applications of different choices can be adopted by public officials that are on the verge of deciding the best way to report for the goal number one.

First, I would like to bring this work to the attention to the persons that can benefit from the findings, policy-makers all over the world, but particularly in Latin America and the Caribbean, especially those in charge of measuring changes in national poverty goals (e.g. statistical offices, ministries of planning, ministries of social development), and the social policy-makers. The general comment they can take away from this research is that poverty measurement is not only about replicating the methods used in other countries. Poverty is context-specific and taking decisions about where to put a threshold, what are the dimensions to include and which is the best method to use, can only be achieved after a thorough inspection of the implications of each decision. Social policy-makers and those in charge of monitoring the path of indicators and indices cannot be isolated from the latest findings performed by social researchers, but at the same time should be creative and doubt of each one of their choices until they are absolutely sure of their implications. In other words, do not take for granted what you have not proved by yourself.

Second, PhD students, master students and researchers. The findings of this thesis are just the tip of the iceberg. This research opens a new way to improve the measurement of poverty, to use innovative techniques and mix all the findings to increase the knowledge of trends over time, effects of particular indicators selected, units of analysis, and especially, the role of stochastic dominance conditions to restrict the ranges of normative choices about the number of dimensions to be consider multidimensionally poor.

Lastly, after finishing my first draft and becoming a policy-maker myself, I found out that there is a gap in the implementation of monitoring systems, knowledge of indicators, and use of available resources that could benefit the public policy cycle. I had the advantage of coming from a quantitative perspective and the course of studies made me intrigued by the use of qualitative sources. The mix of methods can give a broader perspective to successful and not so successful policy interventions. In this particular sense, this research can benefit those not in the government or in academia. Community leaders, as well as workers in the field of social policy in small towns and with small projects have the most to gain by the knowledge and mix of methods used in this thesis.

However, further research is recommended. I suggest particularly that innovative work can be developed in the upper range censoring of stochastic dominance conditions as shown in Chapter 3. I also consider that the development of Hasse-Diagram rankings can be analyzed for a broader range of choices. The dynamic multidimensional poverty line of research is in its infancy. New developments would be shortly appearing despite the lack of panel datasets in less developing countries. Lastly, the results shown are replicable as all the datasets used in this thesis are freely available to be downloaded. All of them have different levels of quality, but individually each one has richness of variables and indicators that could be potentially included. I must remind the reader that in order to keep all the datasets comparable, and therefore the measurement of multidimensional poverty, I had to resist including other interesting variables.